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SEQUENCE LISTING

<110> Korenberg, Julie R
Chen, Xiao-Ning

<120> ISOLATED SH3 GENES ASSOCIATED WITH MYELOPROLIFERATIVE
DISORDERS AND LEUKEMIA, AND USES THEREOF

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PROTEIN

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 10. of the system is not a simple one.

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Gly Pro Glu Gln Leu Thr Leu Ala Pro Gly Gln Leu Ile Leu Ile Arg
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Lys Lys Arg Gln Ile Gly Trp Phe Pro Ala Asn Tyr Val Lys Leu Leu
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Ser Pro Gly Thr Ser Lys Ile Thr Pro Thr Glu Pro Pro Lys Ser Thr
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 1155 1160 1165

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Leu Asn Lys Glu Asp Pro Asp Trp Trp Lys Gly Glu Val Asn Gly Gln
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Ser Arg Ser Gly Pro Gly Ser Gln Leu Asn Thr Lys Leu Gln Lys Ala
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Gln Ser Phe Asp Val Ala Ser Val Pro Pro Val Ala Glu Trp Ala Val
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Pro Gln Ser Ser Arg Leu Lys Tyr Arg Gln Leu Phe Asn Ser His Asp
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Ser Asp Ile Asp Gln Asp Gly Lys Leu Thr Ala Glu Glu Phe Ile Leu
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Glu Arg Arg Lys Glu Ile Glu Arg Arg Glu Ala Ala Lys Arg Glu Leu
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Pro	Pro	Ser	Phe	Arg	Arg	Val	Arg	Ser	Gly	Ser	Gly	Ile	Ser	Val	Ile	
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Ser	Ser	Thr	Ser	Val	Asp	Gln	Arg	Leu	Pro	Glu	Glu	Pro	Val	Leu	Glu	
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Arg	Gln	Ala	Leu	Leu	Glu	Gln	Gln	Arg	Lys	Glu	Gln	Glu	Arg	Leu	Ala	
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415

Leu Gly Arg Leu Phe His Gln His Gln Glu Pro Ala Lys Pro Ala Val

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18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.	60.	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.	93.	94.	95.	96.	97.	98.	99.	100.

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Gln Glu Asn Val Lys Val Val Tyr Tyr Arg Ala Leu Tyr Pro Phe Glu						
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Ser Arg Ser His Asp Glu Ile Thr Ile Gln Pro Gly Asp Ile Val Met						
		755		760		765
Val Asp Glu Ser Gln Thr Gly Glu Pro Gly Trp Leu Gly Gly Glu Leu						
		770		775		780
Lys Gly Lys Thr Gly Trp Phe Pro Ala Asn Tyr Ala Glu Lys Ile Pro						
		785		790		800
Glu Asn Glu Val Pro Ala Pro Val Lys Pro Val Thr Asp Ser Thr Ser						
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Ala Pro Ala Pro Lys Leu Ala Leu Arg Glu Thr Pro Ala Pro Leu Ala						
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Val Thr Ser Ser Glu Pro Ser Thr Thr Pro Asn Asn Trp Ala Asp Phe						
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Ser Ser Thr Trp Pro Thr Ser Thr Asn Glu Lys Pro Glu Thr Asp Asn						
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Trp Asp Ala Trp Ala Ala Gln Pro Ser Leu Thr Val Pro Ser Ala Gly						
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Gln Leu Arg Gln Arg Ser Ala Phe Thr Pro Ala Thr Ala Thr Gly Ser						
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Ser Pro Ser Pro Val Leu Gly Gln Gly Glu Lys Val Glu Gly Leu Gln						
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Ala Gln Ala Leu Tyr Pro Trp Arg Ala Lys Lys Asp Asn His Leu Asn						
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Phe Asn Lys Asn Asp Val Ile Thr Val Leu Glu Gln Gln Asp Met Trp						
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Trp Phe Gly Glu Val Gln Gly Gln Lys Gly Trp Phe Pro Lys Ser Tyr						
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Val Lys Leu Ile Ser Gly Pro Ile Arg Lys Ser Thr Ser Met Asp Ser						
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Gly Ser Ser Glu Ser Pro Ala Ser Leu Lys Arg Val Ala Ser Pro Ala						
		980		985		990
Ala Lys Pro Val Val Ser Gly Glu Glu Phe Ile Ala Met Tyr Thr Tyr						
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Glu Ser Ser Glu Gln Gly Asp Leu Thr Phe Gln Gln Gly Asp Val Ile						

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Leu Val Thr Lys Lys Asp Gly Asp Trp Trp Thr Gly Thr Val Gly Asp
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Gly Ser Gly Thr Ala Gly Lys Thr Gly Ser Leu Gly Lys Lys Pro Glu
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Gly Trp Phe Pro Ala Asn Tyr Val Lys Leu Leu Ser Pro Gly Thr Ser
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Lys Ile Thr Pro Thr Glu Pro Pro Lys Ser Thr Ala Leu Ala Ala Val
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Leu Ala Phe Asn Lys Gly Gln Ile Ile Asn Val Leu Asn Lys Glu Asp
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Asp Gln Ala Arg Asn Phe Phe Phe Gln Ser Gly Leu Pro Gln Pro Val
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Leu Ala Gln Ile Trp Ala Leu Ala Asp Met Asn Asn Asp Gly Arg Met
65 70 75 80
Asp Gln Val Glu Phe Ser Ile Ala Met Lys Leu Ile Lys Leu Lys Leu
85 90 95
Gln Gly Tyr Gln Leu Pro Ser Ala Leu Pro Pro Val Met Lys Gln Gln
100 105 110
Pro Val Ala Ile Ser Ser Ala Pro Ala Phe Gly Met Gly Gly Ile Ala
115 120 125
Ser Met Pro Pro Leu Thr Ala Val Ala Pro Val Pro Met Gly Ser Ile

402070 "44502250

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Ala Val Pro Pro Leu Ala Asn Gly Ala Pro Pro Val Ile Gln Pro Leu 165 170 175		
Pro Ala Phe Ala His Pro Ala Ala Thr Leu Pro Lys Ser Ser Ser Phe 180 185 190		
Ser Arg Ser Gly Pro Gly Ser Gln Leu Asn Thr Lys Leu Gln Lys Ala 195 200 205		
Gln Ser Phe Asp Val Ala Ser Val Pro Pro Val Ala Glu Trp Ala Val 210 215 220		
Pro Gln Ser Ser Arg Leu Lys Tyr Arg Gln Leu Phe Asn Ser His Asp 225 230 235 240		
Lys Thr Met Ser Gly His Leu Thr Gly Pro Gln Ala Arg Thr Ile Leu 245 250 255		
Met Gln Ser Ser Leu Pro Gln Ala Gln Leu Ala Ser Ile Trp Asn Leu 260 265 270		
Ser Asp Ile Asp Gln Asp Gly Lys Leu Thr Ala Glu Glu Phe Ile Leu 275 280 285		
Ala Met His Leu Ile Asp Val Ala Met Ser Gly Gln Pro Leu Pro Pro 290 295 300		
Val Leu Pro Pro Glu Tyr Ile Pro Pro Ser Phe Arg Arg Val Arg Ser 305 310 315 320		
Gly Ser Gly Ile Ser Val Ile Ser Ser Thr Ser Val Asp Gln Arg Leu 325 330 335		
Pro Glu Glu Pro Val Leu Glu Asp Glu Gln Gln Gln Leu Glu Lys Lys 340 345 350		
Leu Pro Val Thr Phe Glu Asp Lys Lys Arg Glu Asn Phe Glu Arg Gly 355 360 365		
Asn Leu Glu Leu Glu Lys Arg Arg Gln Ala Leu Leu Glu Gln Gln Arg 370 375 380		
Lys Glu Gln Glu Arg Leu Ala Gln Leu Glu Arg Ala Glu Gln Glu Arg 385 390 395 400		
Lys Glu Arg Glu Arg Gln Glu Gln Glu Arg Lys Arg Gln Leu Glu Leu 405 410 415		
Glu Lys Gln Leu Glu Lys Gln Arg Glu Leu Glu Arg Gln Arg Glu Glu 420 425 430		
Glu Arg Arg Lys Glu Ile Glu Arg Arg Glu Ala Ala Lys Arg Glu Leu		

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Leu 465	Asn	Gln	Arg	Asn	Lys 470	Glu	Gln	Glu	Asp	Ile 475	Val	Val	Leu	Lys	Ala 480		
Lys	Lys	Lys	Thr	Leu 485	Glu	Phe	Glu	Leu	Glu 490	Ala	Leu	Asn	Asp	Lys 495	Lys		
His	Gln	Leu	Glu 500	Gly	Lys	Leu	Gln	Asp 505	Ile	Arg	Cys	Arg	Leu 510	Thr	Thr		
Gln	Arg	Gln 515	Glu	Ile	Glu	Ser	Thr 520	Asn	Lys	Ser	Arg	Glu 525	Leu	Arg	Ile		
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Arg	Ala	Leu 580	Glu	Ala	Lys	Glu	Leu 585	Ala	Arg	Gln	His	Leu 590	Arg	Asp	Gln		
Leu	Asp 595	Glu	Val	Glu	Lys	Glu	Thr 600	Arg	Ser	Lys	Leu	Gln 605	Glu	Ile	Asp		
Ile 610	Phe	Asn	Asn	Gln	Leu	Lys 615	Glu	Leu	Arg	Glu	Ile 620	His	Asn	Lys	Gln		
Gln 625	Leu	Gln	Lys	Gln	Lys 630	Ser	Met	Glu	Ala	Glu 635	Arg	Leu	Lys	Gln	Lys 640		
Glu	Gln	Glu	Arg	Lys 645	Ile	Ile	Glu	Leu	Glu 650	Lys	Gln	Lys	Glu	Glu 655	Ala		
Gln	Arg	Arg 660	Ala	Gln	Glu	Arg	Asp 665	Lys	Gln	Trp	Leu	Glu 670	His	Val	Gln		
Gln 675	Glu	Asp	Glu	His	Gln	Arg	Pro 680	Arg	Lys	Leu	His	Glu 685	Glu	Glu	Lys		
Leu 690	Lys	Arg	Glu	Glu	Ser	Val 695	Lys	Lys	Lys	Asp	Gly 700	Glu	Glu	Lys	Gly		
Lys 705	Gln	Glu	Ala	Gln	Asp 710	Lys	Leu	Gly	Arg	Leu 715	Phe	His	Gln	His	Gln 720		
Glu	Pro	Ala	Lys 725	Pro	Ala	Val	Gln	Ala	Pro 730	Trp	Ser	Thr	Ala	Glu 735	Lys		
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Trp Thr Gly Thr Val Gly Asp Lys Ala Gly Val Phe Pro Ser Asn Tyr

[Faint bleed-through from the reverse side of the page]

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Ser Leu Gly Lys Lys Pro Glu Ile Ala Gln Val Ile Ala Ser Tyr Thr
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Ala Thr Gly Pro Glu Gln Leu Thr Leu Ala Pro Gly Gln Leu Ile Leu
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Ile Arg Lys Lys Asn Pro Gly Gly Trp Trp Glu Gly Glu Leu Gln Ala
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Arg Gly Lys Lys Arg Gln Ile Gly Trp Phe Pro Ala Asn Tyr Val Lys
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Leu Leu Ser Pro Gly Thr Ser Lys Ile Thr Pro Thr Glu Pro Pro Lys
 1140 1145 1150

Ser Thr Ala Leu Ala Ala Val Cys Gln Val Ile Gly Met Tyr Asp Tyr
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Thr Ala Gln Asn Asp Asp Glu Leu Ala Phe Asn Lys Gly Gln Ile Ile
 1170 1175 1180

Asn Val Leu Asn Lys Glu Asp Pro Asp Trp Trp Lys Gly Glu Val Asn
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<211> 648

<212> PRT

<213> Homo sapiens

<400> 72

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Phe Gln Ser Gly Leu Pro Gln Pro Val Leu Ala Gln Ile Trp Ala Leu
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Ala Asp Met Asn Asn Asp Gly Arg Met Asp Gln Val Glu Phe Ser Ile

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Ala Met Lys Leu Ile Lys Leu Lys Leu Gln Gly Tyr Gln Leu Pro Ser						
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Ala Leu Pro Pro Val Met Lys Gln Gln Pro Val Ala Ile Ser Ser Ala						
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Pro Ala Phe Gly Met Gly Gly Ile Ala Ser Met Pro Pro Leu Thr Ala						
		115		120		125
Val Ala Pro Val Pro Met Gly Ser Ile Pro Val Val Gly Met Ser Pro						
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Thr Leu Val Ser Ser Val Pro Thr Ala Ala Val Pro Pro Leu Ala Asn						
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Gly Ala Pro Pro Val Ile Gln Pro Leu Pro Ala Phe Ala His Pro Ala						
		165		170		175
Ala Thr Leu Pro Lys Ser Ser Ser Phe Ser Arg Ser Gly Pro Gly Ser						
		180		185		190
Gln Leu Asn Thr Lys Leu Gln Lys Ala Gln Ser Phe Asp Val Ala Ser						
		195		200		205
Val Pro Pro Val Ala Glu Trp Ala Val Pro Gln Ser Ser Arg Leu Lys						
		210		215		220
Tyr Arg Gln Leu Phe Asn Ser His Asp Lys Thr Met Ser Gly His Leu						
		225		230		235
Thr Gly Pro Gln Ala Arg Thr Ile Leu Met Gln Ser Ser Leu Pro Gln						
		245		250		255
Ala Gln Leu Ala Ser Ile Trp Asn Leu Ser Asp Ile Asp Gln Asp Gly						
		260		265		270
Lys Leu Thr Ala Glu Glu Phe Ile Leu Ala Met His Leu Ile Asp Val						
		275		280		285
Ala Met Ser Gly Gln Pro Leu Pro Pro Val Leu Pro Pro Glu Tyr Ile						
		290		295		300
Pro Pro Ser Phe Arg Arg Val Arg Ser Gly Ser Gly Ile Ser Val Ile						
		305		310		315
Ser Ser Thr Ser Val Asp Gln Arg Leu Pro Glu Glu Pro Val Leu Glu						
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Asp Glu Gln Gln Gln Leu Glu Lys Lys Leu Pro Val Thr Phe Glu Asp						
		340		345		350
Lys Lys Arg Glu Asn Phe Glu Arg Gly Asn Leu Glu Leu Glu Lys Arg						
		355		360		365
Arg Gln Ala Leu Leu Glu Gln Gln Arg Lys Glu Gln Glu Arg Leu Ala						

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Gln Leu Glu Arg Ala Glu Gln Glu Arg Lys Glu Arg Glu Arg Gln Glu
385 390 395 400

Gln Glu Arg Lys Arg Gln Leu Glu Leu Glu Lys Gln Leu Glu Lys Gln
405 410 415

Arg Glu Leu Glu Arg Gln Arg Glu Glu Glu Arg Arg Lys Glu Ile Glu
420 425 430

Arg Arg Glu Ala Ala Lys Arg Glu Leu Glu Arg Gln Arg Gln Leu Glu
435 440 445

Trp Glu Arg Asn Arg Arg Gln Glu Leu Leu Asn Gln Arg Asn Lys Glu
450 455 460

Gln Glu Asp Ile Val Val Leu Lys Ala Lys Lys Lys Thr Leu Glu Phe
465 470 475 480

Glu Leu Glu Ala Leu Asn Asp Lys Lys His Gln Leu Glu Gly Lys Leu
485 490 495

Gln Asp Ile Arg Cys Arg Leu Thr Thr Gln Arg Gln Glu Ile Glu Ser
500 505 510

Thr Asn Lys Ser Arg Glu Leu Arg Ile Ala Glu Ile Thr His Leu Gln
515 520 525

Gln Gln Leu Gln Glu Ser Gln Gln Met Leu Gly Arg Leu Ile Pro Glu
530 535 540

Lys Gln Ile Leu Asn Asp Gln Leu Lys Gln Val Gln Gln Asn Ser Leu
545 550 555 560

His Arg Asp Ser Leu Val Thr Leu Lys Arg Ala Leu Glu Ala Lys Glu
565 570 575

Leu Ala Arg Gln His Leu Arg Asp Gln Leu Asp Glu Val Glu Lys Glu
580 585 590

Thr Arg Ser Lys Leu Gln Glu Ile Asp Ile Phe Asn Asn Gln Leu Lys
595 600 605

Glu Leu Arg Glu Ile His Asn Lys Gln Gln Leu Gln Lys Gln Lys Ser
610 615 620

Met Glu Ala Glu Arg Leu Lys Gln Lys Glu Gln Glu Arg Lys Ile Ile
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Glu Leu Glu Lys Lys Lys Lys Lys
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<210> 73

<211> 33

<212> PRT

[illegible]

<223> From Seq ID 73 to ID 75, there are 3 protein sequences translated from Seq ID No. 71. Together, they form the whole protein sequence.

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<213> Homo sapiens

Gly Val Asp
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<213> Homo sapiens

Gln Gly Lys Ser Asn Arg Thr Met Ala Gln Phe Pro Thr Pro Phe Gly
1 5 10 15

Asp Gln Gln Phe His Ser Leu Lys Pro Ile Ser Gly Phe Ile Thr Gly
35 40 45

Asp Gln Ala Arg Asn Phe Phe Phe Gln Ser Gly Leu Pro Gln Pro Val
50 55 60

Leu Ala Gln Ile Trp Ala Leu Ala Asp Met Asn Asn Asp Gly Arg Met
65 70 75 80

Asp Gln Val Glu Phe Ser Ile Ala Met Lys Leu Ile Lys Leu Lys Leu
85 90 95

Gln Gly Tyr Gln Leu Pro Ser Ala Leu Pro Pro Val Met Lys Gln Gln
100 105 110

Pro Val Ala Ile Ser Ser Ala Pro Ala Phe Gly Met Gly Gly Ile Ala
115 120 125

Ser Met Pro Pro Leu Thr Ala Val Ala Pro Val Pro Met Gly Ser Ile
 130 135 140
 Pro Val Val Gly Met Ser Pro Thr Leu Val Ser Ser Val Pro Thr Ala
 145 150 155 160
 Ala Val Pro Pro Leu Ala Asn Gly Ala Pro Pro Val Ile Gln Pro Leu
 165 170 175
 Pro Ala Phe Ala His Pro Ala Ala Thr Leu Pro Lys Ser Ser Ser Phe
 180 185 190
 Ser Arg Ser Gly Pro Gly Ser Gln Leu Asn Thr Lys Leu Gln Lys Ala
 195 200 205
 Gln Ser Phe Asp Val Ala Ser Val Pro Pro Val Ala Glu Trp Ala Val
 210 215 220
 Pro Gln Ser Ser Arg Leu Lys Tyr Arg Gln Leu Phe Asn Ser His Asp
 225 230 235 240
 Lys Thr Met Ser Gly His Leu Thr Gly Pro Gln Ala Arg Thr Ile Leu
 245 250 255
 Met Gln Ser Ser Leu Pro Gln Ala Gln Leu Ala Ser Ile Trp Asn Leu
 260 265 270
 Ser Asp Ile Asp Gln Asp Gly Lys Leu Thr Ala Glu Glu Phe Ile Leu
 275 280 285
 Ala Met His Leu Ile Asp Val Ala Met Ser Gly Gln Pro Leu Pro Pro
 290 295 300
 Val Leu Pro Pro Glu Tyr Ile Pro Pro Ser Phe Arg Arg Val Arg Ser
 305 310 315 320
 Gly Ser Gly Ile Ser Val Ile Ser Ser Thr Ser Val Asp Gln Arg Leu
 325 330 335
 Pro Glu Glu Pro Val Leu Glu Asp Glu Gln Gln Gln Leu Glu Lys Lys
 340 345 350
 Leu Pro Val Thr Phe Glu Asp Lys Lys Arg Glu Asn Phe Glu Arg Gly
 355 360 365
 Asn Leu Glu Leu Glu Lys Arg Arg Gln Ala Leu Leu Glu Gln Gln Arg
 370 375 380
 Lys Glu Gln Glu Arg Leu Ala Gln Leu Glu Arg Ala Glu Gln Glu Arg
 385 390 395 400
 Lys Glu Arg Glu Arg Gln Glu Gln Glu Arg Lys Arg Gln Leu Glu Leu
 405 410 415
 Glu Lys Gln Leu Glu Lys Gln Arg Glu Leu Glu Arg Gln Arg Glu Glu
 420 425 430

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Glu Arg Gln Arg Gln Leu Glu Trp Glu Arg Asn Arg Arg Gln Glu Leu
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Lys Lys Lys Thr Leu Glu Phe Glu Leu Glu Ala Leu Asn Asp Lys Lys
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His Gln Leu Glu Gly Lys Leu Gln Asp Ile Arg Cys Arg Leu Thr Thr
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Gln Arg Gln Glu Ile Glu Ser Thr Asn Lys Ser Arg Glu Leu Arg Ile
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Ala Glu Ile Thr His Leu Gln Gln Gln Leu Gln Glu Ser Gln Gln Met
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Gln Val Gln Gln Asn Ser Leu His Arg Asp Ser Leu Val Thr Leu Lys
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<211> 3231

<212> DNA

<213> Homo sapiens

<400> 76

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Gln Met Leu Gly Arg Leu Ile Pro Glu Lys Gln Ile Leu Asn Asp Gln
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Leu Lys Gln Val Gln Gln Asn Ser Leu His Arg Asp Ser Leu Val Thr
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Leu Lys Arg Ala Leu Glu Ala Lys Glu Leu Ala Arg Gln His Leu Arg
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Asp Gln Leu Asp Glu Val Glu Lys Glu Thr Arg Ser Lys Leu Gln Glu
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Ile Asp Ile Phe Asn Asn Gln Leu Lys Glu Leu Arg Glu Ile His Asn
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Gln Lys Glu Gln Glu Arg Lys Ile Ile Glu Leu Glu Lys Gln Lys Glu
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Glu Lys Leu Lys Arg Glu Glu Ser Val Lys Lys Lys Asp Gly Glu Glu
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His Gln Glu Pro Ala Lys Pro Ala Val Gln Ala Pro Trp Ser Thr Ala
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Glu Lys Gly Pro Leu Thr Ile Ser Ala Gln Glu Asn Val Lys Val Val
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Gln Ile Gly Trp Phe Pro Ala Asn Tyr Val Lys Leu Leu Ser Pro Gly
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Thr Ser Lys Ile Thr Pro Thr Glu Pro Pro Lys Ser Thr Ala Leu Ala
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sequences translated from Seq ID No. 76. Together,
they form the whole protein sequence.

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Lys Pro Ile Ser Gly Phe Ile Thr Gly Asp Gln Ala Arg Asn Phe Phe

35 40 45

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Ala	Asp	Met	Asn	Asn	Asp	Gly	Arg	Met	Asp	Gln	Val	Glu	Phe	Ser	Ile	65	70	75
Ala	Met	Lys	Leu	Ile	Lys	Leu	Lys	Leu	Gln	Gly	Tyr	Gln	Leu	Pro	Ser	85	90	95
Ala	Leu	Pro	Pro	Val	Met	Lys	Gln	Gln	Pro	Val	Ala	Ile	Ser	Ser	Ala	100	105	110
Pro	Pro	Phe	Gly	Met	Gly	Gly	Ile	Ala	Ser	Met	Pro	Pro	Leu	Thr	Ala	115	120	125
Val	Ala	Pro	Val	Pro	Met	Gly	Ser	Ile	Pro	Val	Val	Gly	Met	Ser	Pro	130	135	140
Thr	Leu	Val	Ser	Ser	Val	Pro	Thr	Ala	Ala	Val	Pro	Pro	Leu	Ala	Asn	145	150	155
Gly	Ala	Pro	Pro	Val	Ile	Gln	Pro	Leu	Pro	Ala	Phe	Ala	His	Pro	Ala	165	170	175
Ala	Thr	Leu	Pro	Lys	Ser	Ser	Ser	Phe	Ser	Arg	Ser	Gly	Pro	Gly	Ser	180	185	190
Gln	Leu	Asn	Thr	Lys	Leu	Gln	Lys	Ala	Gln	Ser	Phe	Asp	Val	Ala	Ser	195	200	205
Val	Pro	Pro	Val	Ala	Glu	Trp	Ala	Val	Pro	Gln	Ser	Ser	Arg	Leu	Lys	210	215	220
Tyr	Arg	Gln	Leu	Phe	Asn	Ser	His	Asp	Lys	Thr	Met	Ser	Gly	His	Leu	225	230	235
Thr	Gly	Pro	Gln	Ala	Arg	Thr	Ile	Leu	Met	Gln	Ser	Ser	Leu	Pro	Gln	245	250	255
Ala	Gln	Leu	Ala	Ser	Ile	Trp	Asn	Leu	Ser	Asp	Ile	Asp	Gln	Asp	Gly	260	265	270
Lys	Leu	Thr	Ala	Glu	Glu	Phe	Ile	Leu	Ala	Met	His	Leu	Ile	Asp	Val	275	280	285
Ala	Met	Ser	Gly	Gln	Pro	Leu	Pro	Pro	Val	Leu	Pro	Pro	Glu	Tyr	Ile	290	295	300
Pro	Pro	Ser	Phe	Arg	Arg	Val	Arg	Ser	Gly	Ser	Gly	Ile	Ser	Val	Ile	305	310	315
Ser	Ser	Thr	Ser	Val	Asp	Gln	Arg	Leu	Pro	Glu	Glu	Pro	Val	Leu	Glu	325	330	335
Asp	Glu	Gln	Gln	Gln	Leu	Glu	Lys	Lys	Leu	Pro	Val	Thr	Phe	Glu	Asp	340	345	350

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Pro	Pro	Phe	Gly	Met	Gly	Gly	Ile	Ala	Ser	Met	Pro	Pro	Leu	Thr	Ala	
		115					120					125				
Val	Ala	Pro	Val	Pro	Met	Gly	Ser	Ile	Pro	Val	Val	Gly	Met	Ser	Pro	
	130					135					140					
Thr	Leu	Val	Ser	Ser	Val	Pro	Thr	Ala	Ala	Val	Pro	Pro	Leu	Ala	Asn	
145					150					155					160	
Gly	Ala	Pro	Pro	Val	Ile	Gln	Pro	Leu	Pro	Ala	Phe	Ala	His	Pro	Ala	
				165					170					175		
Ala	Thr	Leu	Pro	Lys	Ser	Ser	Ser	Phe	Ser	Arg	Ser	Gly	Pro	Gly	Ser	
			180					185					190			
Gln	Leu	Asn	Thr	Lys	Leu	Gln	Lys	Ala	Gln	Ser	Phe	Asp	Val	Ala	Ser	
		195					200					205				
Val	Pro	Pro	Val	Ala	Glu	Trp	Ala	Val	Pro	Gln	Ser	Ser	Arg	Leu	Lys	
	210					215					220					
Tyr	Arg	Gln	Leu	Phe	Asn	Ser	His	Asp	Lys	Thr	Met	Ser	Gly	His	Leu	
225					230					235					240	
Thr	Gly	Pro	Gln	Ala	Arg	Thr	Ile	Leu	Met	Gln	Ser	Ser	Leu	Pro	Gln	
				245					250					255		
Ala	Gln	Leu	Ala	Ser	Ile	Trp	Asn	Leu	Ser	Asp	Ile	Asp	Gln	Asp	Gly	
			260					265					270			
Lys	Leu	Thr	Ala	Glu	Glu	Phe	Ile	Leu	Ala	Met	His	Leu	Ile	Asp	Val	
		275					280					285				
Ala	Met	Ser	Gly	Gln	Pro	Leu	Pro	Pro	Val	Leu	Pro	Pro	Glu	Tyr	Ile	
	290					295					300					
Pro	Pro	Ser	Phe	Arg	Arg	Val	Arg	Ser	Gly	Ser	Gly	Ile	Ser	Val	Ile	
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Ser	Ser	Thr	Ser	Val	Asp	Gln	Arg	Leu	Pro	Glu	Glu	Pro	Val	Leu	Glu	
				325					330					335		
Asp	Glu	Gln	Gln	Gln	Leu	Glu	Lys	Lys	Leu	Pro	Val	Thr	Phe	Glu	Asp	
		340						345					350			
Lys	Lys	Arg	Glu	Asn	Phe	Glu	Arg	Gly	Asn	Leu	Glu	Leu	Glu	Lys	Arg	
		355					360					365				
Arg	Gln	Ala	Leu	Leu	Glu	Gln	Gln	Arg	Lys	Glu	Gln	Glu	Arg	Leu	Ala	
		370				375					380					
Gln	Leu	Glu	Arg	Ala	Glu	Gln	Glu	Arg	Lys	Glu	Arg	Glu	Arg	Gln	Glu	
385					390					395					400	
Gln	Glu	Arg	Lys	Arg	Gln	Leu	Glu	Leu	Glu	Lys	Gln	Leu	Glu	Lys	Gln	
				405					410					415		

Arg	Glu	Leu	Glu	Arg	Gln	Arg	Glu	Glu	Glu	Arg	Arg	Lys	Glu	Ile	Glu	420	425	430
Arg	Arg	Glu	Ala	Ala	Lys	Arg	Glu	Leu	Glu	Arg	Gln	Arg	Gln	Leu	Glu	435	440	445
Trp	Glu	Arg	Asn	Arg	Arg	Gln	Glu	Leu	Leu	Asn	Gln	Arg	Asn	Lys	Glu	450	455	460
Gln	Glu	Asp	Ile	Val	Val	Leu	Lys	Ala	Lys	Lys	Lys	Thr	Leu	Glu	Phe	465	470	475
Glu	Leu	Glu	Ala	Leu	Asn	Asp	Lys	Lys	His	Gln	Leu	Glu	Gly	Lys	Leu	485	490	495
Gln	Asp	Ile	Arg	Cys	Arg	Leu	Thr	Thr	Gln	Arg	Gln	Glu	Ile	Glu	Ser	500	505	510
Thr	Asn	Lys	Ser	Arg	Glu	Leu	Arg	Ile	Ala	Glu	Ile	Thr	His	Leu	Gln	515	520	525
Gln	Gln	Leu	Gln	Glu	Ser	Gln	Gln	Met	Leu	Gly	Arg	Leu	Ile	Pro	Glu	530	535	540
Lys	Gln	Ile	Leu	Asn	Asp	Gln	Leu	Lys	Gln	Val	Gln	Gln	Asn	Ser	Leu	545	550	555
His	Arg	Asp	Ser	Leu	Val	Thr	Leu	Lys	Arg	Ala	Leu	Glu	Ala	Lys	Glu	565	570	575
Leu	Ala	Arg	Gln	His	Leu	Arg	Asp	Gln	Leu	Asp	Glu	Val	Glu	Lys	Glu	580	585	590
Thr	Arg	Ser	Lys	Leu	Gln	Glu	Ile	Asp	Ile	Phe	Asn	Asn	Gln	Leu	Lys	595	600	605
Glu	Leu	Arg	Glu	Ile	His	Asn	Lys	Gln	Gln	Leu	Gln	Lys	Gln	Lys	Ser	610	615	620
Met	Glu	Ala	Glu	Arg	Leu	Lys	Gln	Lys	Glu	Gln	Glu	Arg	Lys	Ile	Ile	625	630	635
Glu	Leu	Glu	Lys	Gln	Lys	Glu	Glu	Ala	Gln	Arg	Arg	Ala	Gln	Glu	Arg	645	650	655
Asp	Lys	Gln	Trp	Leu	Glu	His	Val	Gln	Gln	Glu	Asp	Glu	His	Gln	Arg	660	665	670
Pro	Arg	Lys	Leu	His	Glu	Glu	Glu	Lys	Leu	Lys	Arg	Glu	Glu	Ser	Val	675	680	685
Lys	Lys	Lys	Asp	Gly	Glu	Glu	Lys	Gly	Lys	Gln	Glu	Ala	Gln	Asp	Lys	690	695	700
Leu	Gly	Arg	Leu	Phe	His	Gln	His	Gln	Glu	Pro	Ala	Lys	Pro	Ala	Val	705	710	715
																		720

Gln Gly Asp Val Ile Leu Val Thr Lys Lys Asp Gly Asp Trp Trp Thr
 1025 1030 1035 1040
 Gly Thr Val Gly Asp Lys Ala Gly Val Phe Pro Ser Asn Tyr Val Arg
 1045 1050 1055
 Leu Lys Asp Ser Glu Gly Ser Gly Thr Ala Gly Lys Thr Gly Ser Leu
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 Gly Lys Lys Pro Glu Ile Ala Gln Val Ile Ala Ser Tyr Thr Ala Thr
 1075 1080 1085
 Gly Pro Glu Gln Leu Thr Leu Ala Pro Gly Gln Leu Ile Leu Ile Arg
 1090 1095 1100
 Lys Lys Asn Pro Gly Gly Trp Trp Glu Gly Glu Leu Gln Ala Arg Gly
 1105 1110 1115 1120
 Lys Lys Arg Gln Ile Gly Trp Phe Pro Ala Asn Tyr Val Lys Leu Leu
 1125 1130 1135
 Asn Pro Gly Thr Ser Lys Ile Thr Pro Thr Glu Pro Pro Lys Ser Thr
 1140 1145 1150
 Ala Leu Ala Ala Val Cys Gln Val Ile Gly Met Tyr Asp Tyr Thr Ala
 1155 1160 1165
 Gln Asn Asp Asp Glu Leu Ala Phe Asn Lys Gly Gln Ile Ile Asn Val
 1170 1175 1180
 Leu Asn Lys Glu Asp Pro Asp Trp Trp Lys Gly Glu Val Asn Gly Gln
 1185 1190 1195 1200
 Val Gly Leu Phe Pro Ser Asn Tyr Val Lys Leu Thr Thr Asp Met Asp
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 Pro Ser Gln Gln
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<400> 107
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 Ile Thr Val Glu Glu Arg Ala Lys His Asp Gln Gln Phe His Gly Leu
 20 25 30
 Lys Pro Thr Ala Gly Tyr Ile Thr Gly Asp Gln Ala Arg Asn Phe Phe
 35 40 45
 Leu Gln Ser Gly Leu Pro Gln Pro Val Leu Ala Gln Ile Trp Ala Leu

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50					55					60					
Ala	Asp	Met	Asn	Asn	Asp	Gly	Arg	Met	Asp	Gln	Leu	Glu	Phe	Ser	Ile
65					70					75					80
Ala	Met	Lys	Leu	Ile	Lys	Leu	Lys	Leu	Gln	Gly	Tyr	Pro	Leu	Pro	Ser
			85						90					95	
Ile	Leu	Pro	Ser	Asn	Met	Leu	Lys	Gln	Pro	Val	Ala	Met	Pro	Ala	Ala
			100					105					110		
Ala	Val	Ala	Gly	Phe	Gly	Met	Ser	Gly	Ile	Val	Gly	Ile	Pro	Pro	Leu
		115					120					125			
Ala	Ala	Val	Ala	Pro	Val	Pro	Met	Pro	Ser	Ile	Pro	Val	Val	Gly	Met
	130					135					140				
Ser	Pro	Pro	Leu	Val	Ser	Ser	Val	Pro	Thr	Val	Pro	Pro	Leu	Ser	Asn
145					150					155					160
Gly	Ala	Pro	Ala	Val	Ile	Gln	Ser	His	Pro	Ala	Phe	Ala	His	Ser	Ala
				165					170					175	
Thr	Leu	Pro	Lys	Ser	Ser	Ser	Phe	Gly	Arg	Ser	Val	Ala	Gly	Ser	Gln
			180					185					190		
Ile	Asn	Thr	Lys	Leu	Gln	Lys	Ala	Gln	Ser	Phe	Asp	Val	Pro	Ala	Pro
		195					200					205			
Pro	Leu	Val	Val	Glu	Trp	Ala	Val	Pro	Ser	Ser	Ser	Arg	Leu	Lys	Tyr
	210					215						220			
Arg	Gln	Leu	Phe	Asn	Ser	Gln	Asp	Lys	Thr	Met	Ser	Gly	Asn	Leu	Thr
225					230					235					240
Gly	Pro	Gln	Ala	Arg	Thr	Ile	Leu	Met	Gln	Ser	Ser	Leu	Pro	Gln	Ser
				245					250					255	
Gln	Leu	Ala	Thr	Ile	Trp	Asn	Leu	Ser	Asp	Ile	Asp	Gln	Asp	Gly	Lys
			260					265					270		
Leu	Thr	Ala	Glu	Glu	Phe	Ile	Leu	Ala	Met	His	Leu	Ile	Asp	Val	Ala
		275					280					285			
Met	Ser	Gly	Gln	Pro	Leu	Pro	Pro	Ile	Leu	Pro	Pro	Glu	Tyr	Ile	Pro
	290					295					300				
Pro	Ser	Phe	Arg	Arg	Val	Arg	Ser	Gly	Ser	Gly	Leu	Ser	Ile	Met	Ser
305					310					315					320
Ser	Val	Ser	Val	Asp	Gln	Arg	Leu	Pro	Glu	Glu	Pro	Glu	Glu	Glu	Glu
				325					330				335		
Pro	Gln	Asn	Ala	Asp	Lys	Lys	Leu	Pro	Val	Thr	Phe	Glu	Asp	Lys	Lys
			340					345					350		
Arg	Glu	Asn	Phe	Glu	Arg	Gly	Asn	Leu	Glu	Leu	Glu	Lys	Arg	Arg	Gln

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Ala Leu Leu Glu Gln Gln Arg Lys Glu Gln Glu Arg Leu Ala Gln Leu
370 375 380

Glu Arg Ala Glu Gln Glu Arg Lys Glu Arg Glu Arg Gln Asp Gln Glu
385 390 395 400

Arg Lys Arg Gln Gln Asp Leu Glu Lys Gln Leu Glu Lys Gln Arg Glu
405 410 415

Leu Glu Arg Gln Arg Glu Glu Glu Arg Arg Lys Glu Ile Glu Arg Arg
420 425 430

Glu Ala Ala Lys Arg Glu Leu Glu Arg Gln Arg Gln Leu Glu Trp Glu
435 440 445

Arg Asn Arg Arg Gln Glu Leu Leu Asn Gln Arg Asn Arg Glu Gln Glu
450 455 460

Asp Ile Val Val Leu Lys Ala Lys Lys Lys Thr Leu Glu Phe Glu Leu
465 470 475 480

Glu Ala Leu Asn Asp Lys Lys His Gln Leu Glu Gly Lys Leu Gln Asp
485 490 495

Ile Arg Cys Arg Leu Thr Thr Gln Arg His Glu Ile Glu Ser Thr Asn
500 505 510

Lys Ser Arg Glu Leu Arg Ile Ala Glu Ile Thr His Leu Gln Gln Gln
515 520 525

Leu Gln Glu Ser Gln Gln Leu Leu Gly Lys Met Ile Pro Glu Lys Gln
530 535 540

Ser Leu Ile Asp Gln Leu Lys Gln Val Gln Gln Asn Ser Leu His Arg
545 550 555 560

Asp Ser Leu Leu Thr Leu Lys Arg Ala Leu Glu Thr Lys Glu Ile Gly
565 570 575

Arg Gln Gln Leu Arg Asp Gln Leu Asp Glu Val Glu Lys Glu Thr Arg
580 585 590

Ala Lys Leu Gln Glu Ile Asp Val Phe Asn Asn Gln Leu Lys Glu Leu
595 600 605

Arg Glu Leu Tyr Asn Lys Gln Gln Phe Gln Lys Gln Gln Asp Phe Glu
610 615 620

Thr Glu Lys Ile Lys Gln Lys Glu Leu Glu Arg Lys Thr Ser Glu Leu
625 630 635 640

Asp Lys Leu Lys Glu Glu Asp Lys Arg Arg Met Leu Glu Gln Asp Lys
645 650 655

Leu Trp Gln Asp Arg Val Lys Gln Glu Glu Glu Arg Tyr Lys Phe Gln

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660	665	670
Asp Glu Glu Lys Glu Lys Arg Glu Glu Ser Val Gln Lys Cys Glu Val		
675	680	685
Glu Lys Lys Pro Glu Ile Gln Glu Lys Pro Asn Lys Pro Phe His Gln		
690	695	700
Pro Pro Glu Pro Gly Lys Leu Gly Gly Gln Ile Pro Trp Met Asn Thr		
705	710	715
Glu Lys Ala Pro Leu Thr Ile Asn Gln Gly Asp Val Lys Val Val Tyr		
725	730	735
Tyr Arg Ala Leu Tyr Pro Phe Asp Ala Arg Ser His Asp Glu Ile Thr		
740	745	750
Ile Glu Pro Gly Asp Ile Ile Met Val Asp Glu Ser Gln Thr Gly Glu		
755	760	765
Pro Gly Trp Leu Gly Gly Glu Leu Lys Gly Lys Thr Gly Trp Phe Pro		
770	775	780
Ala Asn Tyr Ala Glu Arg Met Pro Glu Ser Glu Phe Pro Ser Thr Thr		
785	790	795
Lys Pro Ala Ala Glu Thr Thr Ala Lys Pro Thr Val His Val Ala Pro		
805	810	815
Ser Pro Val Ala Pro Ala Ala Phe Thr Asn Thr Ser Thr Asn Ser Asn		
820	825	830
Asn Trp Ala Asp Phe Ser Ser Thr Trp Pro Thr Asn Asn Thr Asp Lys		
835	840	845
Val Glu Ser Asp Asn Trp Asp Thr Trp Ala Ala Gln Pro Ser Leu Thr		
850	855	860
Val Pro Ser Ala Gly Gln His Arg Gln Arg Ser Ala Phe Thr Pro Ala		
865	870	875
Thr Val Thr Gly Ser Ser Pro Ser Pro Val Leu Gly Gln Gly Glu Lys		
885	890	895
Val Glu Gly Leu Gln Ala Gln Ala Leu Tyr Pro Trp Arg Ala Lys Lys		
900	905	910
Asp Asn His Leu Asn Phe Asn Lys Asn Asp Val Ile Thr Val Leu Glu		
915	920	925
Gln Gln Asp Met Trp Trp Phe Gly Glu Val Gln Gly Gln Lys Gly Trp		
930	935	940
Phe Pro Lys Ser Tyr Val Lys Leu Ile Ser Gly Pro Leu Arg Lys Ser		
945	950	955
Thr Ser Ile Asp Ser Thr Ser Ser Glu Ser Pro Ala Ser Leu Lys Arg		

975

Val Lys Tyr Ile Asn Ile

1265

1270

<210> 108

<211> 1094

<212> PRT

<213> Drosophila sp.

<400> 108

Met Asn Ser Ala Val Asp Ala Trp Ala Val Thr Pro Arg Glu Arg Leu
 1 5 10 15

Lys Tyr Gln Glu Gln Phe Arg Ala Leu Gln Pro Gln Ala Gly Phe Val
 20 25 30

Thr Gly Ala Gln Ala Lys Gly Phe Phe Leu Gln Ser Gln Leu Pro Pro
 35 40 45

Leu Ile Leu Gly Gln Ile Trp Ala Leu Ala Asp Thr Asp Ser Asp Gly
 50 55 60

Lys Met Asn Ile Asn Glu Phe Ser Ile Ala Cys Lys Leu Ile Asn Leu
 65 70 75 80

Lys Leu Arg Gly Met Asp Val Pro Lys Val Leu Pro Pro Ser Leu Leu
 85 90 95

Ser Ser Leu Thr Gly Asp Val Pro Ser Met Thr Pro Arg Gly Ser Thr
 100 105 110

Ser Ser Leu Ser Pro Leu Asp Pro Leu Lys Gly Ile Val Pro Ala Val
 115 120 125

Ala Pro Val Val Pro Val Val Ala Pro Pro Val Ala Val Ala Thr Val
 130 135 140

Ile Ser Pro Pro Gly Val Ser Val Pro Ser Gly Pro Thr Pro Pro Thr
 145 150 155 160

Ser Asn Pro Pro Ser Arg His Thr Ser Ile Ser Glu Arg Ala Pro Ser
 165 170 175

Ile Glu Ser Val Asn Gln Gly Glu Trp Ala Val Gln Ala Ala Gln Lys
 180 185 190

Arg Lys Tyr Thr Gln Val Phe Asn Ala Asn Asp Arg Thr Arg Ser Gly
 195 200 205

Tyr Leu Thr Gly Ser Gln Ala Arg Gly Val Leu Val Gln Ser Lys Leu
 210 215 220

Pro Gln Val Thr Leu Ala Gln Ile Trp Thr Leu Ser Asp Ile Asp Gly
 225 230 235 240

Asp Gly Arg Leu Asn Cys Asp Glu Phe Ile Leu Ala Met Phe Leu Cys
 245 250 255

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Glu	Lys	Ala	Met	Ala	Gly	Glu	Lys	Ile	Pro	Val	Thr	Leu	Pro	Gln	Glu	
			260					265					270			
Trp	Val	Pro	Pro	Asn	Leu	Arg	Lys	Ile	Lys	Ser	Arg	Pro	Gly	Ser	Val	
		275					280					285				
Ser	Gly	Val	Val	Ser	Arg	Pro	Gly	Ser	Gln	Pro	Ala	Ser	Arg	His	Ala	
	290					295					300					
Ser	Val	Ser	Ser	Gln	Ser	Gly	Val	Gly	Val	Val	Asp	Ala	Asp	Pro	Thr	
305					310					315					320	
Ala	Gly	Leu	Pro	Gly	Gln	Thr	Ser	Phe	Glu	Asp	Lys	Arg	Lys	Glu	Asn	
				325					330					335		
Tyr	Val	Lys	Gly	Gln	Ala	Glu	Leu	Asp	Arg	Arg	Arg	Lys	Ile	Met	Glu	
		340						345					350			
Asp	Gln	Gln	Arg	Lys	Glu	Arg	Glu	Glu	Arg	Glu	Arg	Lys	Glu	Arg	Glu	
	355						360					365				
Glu	Ala	Asp	Lys	Arg	Glu	Lys	Ala	Arg	Leu	Glu	Ala	Glu	Arg	Lys	Gln	
	370					375					380					
Gln	Glu	Glu	Leu	Glu	Arg	Gln	Leu	Gln	Arg	Gln	Arg	Glu	Ile	Glu	Met	
385					390					395					400	
Glu	Lys	Glu	Glu	Gln	Arg	Lys	Arg	Glu	Leu	Glu	Ala	Lys	Glu	Ala	Ala	
				405					410					415		
Arg	Lys	Glu	Leu	Glu	Lys	Gln	Arg	Gln	Gln	Glu	Trp	Glu	Gln	Ala	Arg	
			420					425					430			
Ile	Ala	Glu	Met	Asn	Ala	Gln	Lys	Glu	Arg	Glu	Gln	Glu	Arg	Val	Leu	
		435					440					445				
Lys	Gln	Lys	Ala	His	Asn	Thr	Gln	Leu	Asn	Val	Glu	Leu	Ser	Thr	Leu	
	450					455					460					
Asn	Glu	Lys	Ile	Lys	Glu	Leu	Ser	Gln	Arg	Ile	Cys	Asp	Thr	Arg	Ala	
465					470					475					480	
Gly	Val	Thr	Asn	Val	Lys	Thr	Val	Ile	Asp	Gly	Met	Arg	Thr	Gln	Arg	
			485						490					495		
Asp	Thr	Ser	Met	Ser	Glu	Met	Ser	Gln	Leu	Lys	Ala	Arg	Ile	Lys	Glu	
			500					505					510			
Gln	Asn	Ala	Lys	Leu	Leu	Gln	Leu	Thr	Gln	Glu	Arg	Ala	Lys	Trp	Glu	
	515						520					525				
Ala	Lys	Ser	Lys	Ala	Ser	Gly	Ala	Ala	Leu	Gly	Gly	Glu	Asn	Ala	Gln	
	530					535					540					
Gln	Glu	Gln	Leu	Asn	Ala	Ala	Phe	Ala	His	Lys	Gln	Leu	Ile	Ile	Asn	
545					550					555					560	

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Gln	Ile	Lys	Asp	Lys	Val	Glu	Asn	Ile	Ser	Lys	Glu	Ile	Glu	Ser	Lys	
				565					570					575		
Lys	Glu	Asp	Ile	Asn	Thr	Asn	Asp	Val	Gln	Met	Ser	Glu	Leu	Lys	Ala	
			580					585					590			
Glu	Leu	Ser	Ala	Leu	Ile	Thr	Lys	Cys	Glu	Asp	Leu	Tyr	Lys	Glu	Tyr	
		595					600					605				
Asp	Val	Gln	Arg	Thr	Ser	Val	Leu	Glu	Leu	Lys	Tyr	Asn	Arg	Lys	Asn	
	610					615					620					
Glu	Thr	Ser	Val	Ser	Ser	Ala	Trp	Asp	Thr	Gly	Ser	Ser	Ser	Ala	Trp	
625					630					635					640	
Glu	Glu	Thr	Gly	Thr	Thr	Val	Thr	Asp	Pro	Tyr	Ala	Val	Ala	Ser	Asn	
				645					650					655		
Asp	Ile	Ser	Ala	Leu	Ala	Ala	Pro	Ala	Val	Asp	Leu	Gly	Gly	Pro	Ala	
			660					665					670			
Pro	Glu	Gly	Phe	Val	Lys	Tyr	Gln	Ala	Val	Tyr	Glu	Phe	Asn	Ala	Arg	
		675					680					685				
Asn	Ala	Glu	Glu	Ile	Thr	Phe	Val	Pro	Gly	Asp	Ile	Ile	Leu	Val	Pro	
	690					695					700					
Leu	Glu	Gln	Asn	Ala	Glu	Pro	Gly	Trp	Leu	Ala	Gly	Glu	Ile	Asn	Gly	
705					710					715					720	
His	Thr	Gly	Trp	Phe	Pro	Glu	Ser	Tyr	Val	Glu	Lys	Leu	Glu	Val	Gly	
				725					730					735		
Glu	Val	Ala	Pro	Val	Ala	Ala	Val	Glu	Ala	Pro	Val	Asp	Ala	Gln	Val	
			740					745					750			
Ala	Asp	Thr	Tyr	Asn	Asp	Asn	Ile	Asn	Thr	Ser	Ser	Ile	Pro	Ala	Ala	
		755					760					765				
Ser	Ala	Asp	Leu	Thr	Ala	Ala	Gly	Asp	Val	Glu	Tyr	Tyr	Ile	Ala	Ala	
	770					775					780					
Tyr	Pro	Tyr	Glu	Ser	Ala	Glu	Glu	Gly	Asp	Leu	Ser	Phe	Ser	Ala	Gly	
785					790					795					800	
Glu	Met	Val	Met	Val	Ile	Lys	Lys	Glu	Gly	Glu	Trp	Trp	Thr	Gly	Thr	
				805					810					815		
Ile	Gly	Ser	Arg	Thr	Gly	Met	Phe	Pro	Ser	Asn	Tyr	Val	Gln	Lys	Ala	
			820					825					830			
Asp	Val	Gly	Thr	Ala	Ser	Thr	Ala	Ala	Ala	Glu	Pro	Val	Glu	Ser	Leu	
		835					840					845				
Asp	Gln	Glu	Thr	Thr	Leu	Asn	Gly	Asn	Ala	Ala	Tyr	Thr	Ala	Ala	Pro	
	850					855					860					

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